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International Economics Department
The World Bank
October 1988
WPS 102

Effects of the Multifibre Arrangement on Developing Countries

A Survey

Junichi Goto

The Multifibre Arrangement (MFA), the most important restriction on textile and clothing exports, has damaging effects on many less developed countries, both in the short and long run.

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The MFA consists of bilateral quotas against textile and clothing exports from developing countries. It thus derogates two GATT principles: nondiscrimination and the avoidance of quantitative restrictions. Despite this derogation, the MFA is administered under the auspices of GATT.

The primary purpose of the MFA is to restrict LDC shipments of textiles and clothing. Although the MFA quotas cost the consumer in importing countries a great deal, they save (or create) few jobs. The quotas are therefore a poor way to protect workers from foreign competition.

The MFA has a strong impact on LDCs in the short run for the following reasons:

- The forgone export revenue of LDCs, partly offset by the transfer of quota rents, is huge.

- Since individual quotas under the MFA are imposed or selected (often efficient) exporting countries, unrestricted (inefficient) countries may be able to increase their shipments at the expense of restricted countries. The MFA affects the pattern of trade.

- Since the MFA puts a cap on the quantity (not the value) of shipments, it encourages the upgrading of goods.

The MFA also has an impact on the economic development in the long run. On the positive side, attempts to evade MFA quotas stimulate foreign investment from restricted suppliers, like Hong Kong, to nonrestricted countries. Investments to less restricted regions have helped economic development of countries in Asia (and perhaps to less extent in Latin America and the Caribbean).

But the MFA discourages countries from becoming "too successful." For example, when Bangladesh showed success in clothing exports with the help of a Korean company, the developed countries negotiated bilateral restrictions with the poorer country. Thus the MFA tends to maintain the present configuration of textile and clothing trade — and therefore discourages dynamic shifts in trade based on comparative advantage.

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I wish to thank B. Balassa, R. Erzam, J.M. Finger, P. Messerlin, P. Meo, R. Snape, D. Tarr, K. Takeuchi, and many other colleagues of the World Bank and J. Pelzman of George Washington University for valuable comments and suggestions to the earlier draft of the manuscript, and Jean Epps for excellent typing.

1. Introduction

The textile and clothing (T&C) industry has often played a very important role in economic development; production can be started with relatively small amounts of capital and great numbers of workers with low wages and skills. 1/ As Park and Anderson (1988) mentioned, T&C products are "typically among the first items produced and exported by a newly industrializing economy as it begins to diversify away from primary production." Historically, the T&C industry contributed a great deal to the early stages of industrialization of many countries, including the UK, the US, and Japan. Nowadays, T&C products are leading manufacturing items in domestic production and exports in many developing countries.

In spite of (or perhaps because of) its importance to developing countries, international trade of T&C products has been for many years subject to various trade restrictions. As early as 1935, Japan announced (or more precisely, was forced to announce) the voluntary export restraint (VER) on textile exports to the United States. 2/ While various arrangements have been made toward trade liberalization since World War II, T&C trade has constituted an exception to the general GATT rule. Ever since 1961, when the Short-Term Arrangement regarding International Trade in Cotton Textiles (STA) was adopted, special arrangements have been made for international trade of T&C. The product coverage of restrictions on T&C trade was dramatically extended to

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1/ There is an important exception to this general statement. As will be discussed later, it is often pointed out that, since the production of man-made fibre is fairly capital intensive, developed countries have recently regained comparative advantage in the production of textile products.

2/ For details of the Japanese VER in 1935, see Goto (1988), for example.

include man-made fibres and wool when the Arrangement Regarding International Trade in Textiles, better known as the Multifibre Arrangement (MFA), was adopted in 1973. The MFA has been renewed three times; the current MFA IV runs until July 1991.

Because of the importance of the T&C trade and the everlasting nature of the restrictions on it, the MFA has had a strong impact on both importing and exporting countries. For example, the MFA negatively affects consumers in importing countries through the price increases in both domestic and imported T&C products. The MFA also affects the exporting countries through the decline of their export opportunity. While the loss from such decline is partly offset by the "quota rent," many studies have found that the revenue of exporting LDCs lost due to the restrictions is substantial. Further, in addition to the short-run impact mentioned above, the MFA also have various dynamic effects on economic development. On the one hand, the MFA contributes to the economic development of unrestricted or less restricted LDCs, which are often poorer than restricted major T&C exporting LDCs, because the MFA sometimes encourages foreign investment in less restricted LDCs. On the other hand, the MFA has a negative impact on economic development because the process of the dynamic division of labor through the shift in comparative advantage is delayed by the MFA: becuase of the rent revenue, the relatively high wage countries, such as Hong Kong, can maintain the position of major producer of labor-intensive goods like clothing; as soon as a poorer LDC, like Bangladesh, begins to show signs of success in exporting of T&C products, the importing countries discourage such efforts by imposing MFA quotas on its exports.

Since the MFA restrictions have a significant impact on world T&C trade, many studies have been carried out on them. But the subject is so complicated that it is not an easy task to understand its various effects through reading vast amounts of literature. In view of this, the purpose of this survey paper is to review the major findings of existing studies on the MFA's effect, with emphasis on the effects on LDCs, and to suggest the directions for further studies that are needed for a better understanding of the MFA. The structure of the paper is as follows. In the next section, dominant features of the T&C exports from the LDCs will be examined. In section 3, the essence of the MFA provisions and their actual development will be briefly summarized. These two sections are intended to provide a background for the discussion in the later part of the paper. In section 4, studies on the effects of the MFA on importing countries will be surveyed. Although the focus of this paper is the impact on exporting LDCs, the effects on importing countries, too, are briefly surveyed. This is because quite a few studies are available on cost to consumers, domestic employment, profits etc. in importing countries, and because development in the importing country affects the exporting country. In section 5, the effects of the MFA on exporting LDCs will be discussed. In addition to the short-run impact on them, the dynamic effect on the economic development is also discussed. Finally, in section 6, a summary and conclusions will be given as well as the directions for further studies needed on the subject.

2. T&C Exports from the LDCs and Restrictions on Them -- An Overview

(1) Dramatic Expansion of Clothing Exports

The world trade of textiles and clothing in 1986 amounted to more than $110 billion, or 9 percent of total manufacturing trade. Since clothing is relatively labor-intensive, developing countries have shown comparative advantage in their production. This is evident in Table 1. By 1986, their share in the world T&C exports was almost 50 percent, while their share in the world manufacturing exports was only 17 percent. Especially the LDCs show strong competitiveness in clothing exports, and their share of the world clothing exports was more than 60 percent.

From 1976 to 1986 the growth rate of clothing exports from LDCs far exceeded the growth rate of their manufacturing exports. It is noteworthy that during this period the growth rate of T&C exports from the LDCs as a whole was substantially lower than that of manufacturing exports. This was partly because of the MFA restrictions on T&C exports and partly because of the shift of LDC exports toward capital intensive products such as consumer electronics and machinery.

TABLE 1: Share of LDC Exports in World Exports

(%)

	1976	1980	1986
Textiles and Clothing	32.2	40.6	49.2
Textiles	26.0	30.0	33.9
Clothing	43.1	57.7	63.4
Manufacturing	9.4	13.2	16.6

Source: United Nations Trade Statistics.

While LDCs play a very important role in the world T&C trade, T&C exports are very important to the LDCs because the share of the T&C (especially clothing) in the LDC manufacturing exports is very large. As shown in Table 2, more than a quarter of LDC manufacturing exports consisted of textiles and clothing, which is 3 times higher than the world average. It should be noted that the growth rate of LDC textile exports was much slower than clothing exports. As often pointed out, 1/ developed countries have regained, to some extent, their relative strength in the production of textiles (in the narrower sense), as textile production has become more and more capital-intensive following technological development in the industry. Technological progress has been much slower in clothing production, which is still relatively labor-intensive. Therefore, the share of textile exports in LDC manufacturing declined substantially, while that of clothing continuously increased. In view of this difference, it is important to distinguish the two when we discuss the T&C exports from LDCs.

TABLE 2: Share of T&C Exports in Manufacturing Exports

	1976	1980	1986
World Exports			
Textiles and Clothing	9.4	9.1	9.1
Textiles	5.9	5.0	4.4
Clothing	3.5	4.1	4.7
LDC Exports			
Textiles and Clothing	32.2	27.9	27.9
Textiles	16.2	11.4	9.0
Clothing	16.0	16.5	18.9

Source: United Nations Trade Statistics.

1/ See GATT (1984) for example.

Remarkable differences between textiles and clothing are also found in the destinations of these exports from the developing countries. As shown in Table 3, almost all clothing exports, but only half textile exports go to developed countries. As Keesing and Wolf (1980) argue, this heavy dependence of the LDC clothing industry on the DC market is partly because there is very little demand for factory-made clothing in developing countries and partly becuase most LDCs impose strong import restrictions on clothing. Given this, the MFA restrictions imposed by developed countries have all the more damaging effect on developing countries' clothing exports.

TABLE 3: T & C Exports from LDCs by Destination

(%)

Destination	1965	1973	1978	1983
(Textiles)				
Developed Countries	58.2	62.3	51.6	49.9
Developing Countries	41.8	37.7	48.4	50.1
(Clothing)				
Developed Countries	79.3	90.0	85.8	87.3
Developing Countries	20.7	10.0	14.2	12.7

Note: Eastern Europe and USSR are not included.

Source: Compiled from data in the ILO (1987), p.11.

Although many developing countries are exporting clothing to developed countries, the majority of shipments come from a few Asian exporters, i.e. Hong Kong, Korea and Taiwan (Province of China). Table 4 clearly shows this concentration, and it suggests a more interesting phenomenon. While the share of the largest three in LDC clothing exports declined, those of China and other Asian countries increased during 1973-84.

In particular, the expansion of Chinese clothing exports is remarkable. As discussed in detail later in section 5 of this paper, several factors seem to be working in this share change: (i) the shift in comparative advantage in labor-intensive clothing production from more developed (high-wage) LDCs to less developed (low-wage) LDCs, just as Japan lost its comparative advantage in favor of the Asian Big Three, i.e. Hong Kong, Korea, and Taiwan (Province of China), some decades ago; (ii) the shift in clothing exports from the more restricted Asian Big Three toward other less restricted LDCs becuase of the discriminatory nature of the MFA restrictions.

TABLE 4: Clothing Imports into the OECD from Selected LDC Exporters

(Share, %)

Destination	Textiles		Clothing	
	1973	1984	1973	1984
Asian Big Three (1)	29.3	26.8	67.7	61.1
China	11.6	17.8	2.6	8.7
Other Asia (2)	29.2	22.4	7.7	13.4
Latin America and the Caribbean (3)	7.2	9.2	2.7	3.2
Other (4)	22.7	23.8	19.2	13.6
Total of Above	100.0	100.0	100.0	100.0

Note: (1) Hong Kong, South Korea, Taiwan (Province of China)
(2) Bangladesh, India, Indonesia, Pakistan, Philippines, Sri Lanka, Thailand
(3) Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Haiti, Peru Uruguay
(4) Greece, Protugal, Spain, Turkey, Yugoslavia

Source: Cline (1987),p. 141.

(2) Restrictions on T&C Exports

It is worth noting that the dramatic growth of clothing exports from the LDCs occurred in spite of a high level of both tariffs and non-tariff

barriers. Table 5 shows the average tariff rates imposed by major importers of T&C. The post-Tokyo round tariff rate on T&C is almost three times higher than that on manufactured goods as a whole. Further, during the Tokyo round, T&C tariffs were not reduced as much as the tariff rates on manufactured products.

The tariff rates on T&C products tend to increase according to the stage of processing. While the average tariff rate of fibers imposed by major importers is around one percent, that of clothing is often more than 10 percent. The clothing tariff rates of Austria and Finland are especially high (Table 6).

TABLE 5: Pre-Tokyo Round and Post-Tokyo Round Tariff

(Weighted Average, %)

	T & C		Manufacturing	
	Pre	Post	Pre	Post
USA	23.5	19	7	5
Canada	24	21.5	13.5	8.5
Japan	14	11.5	10	5.5
EC	15	11.5	8.5	6
Austria	30.5	30	14.5	12.5
Finland	30	29	7.5	6
Sweden	13	12.5	6	4.5
Switzerland	10.5	8.5	3.5	2.5
Simple average of the above	20.1	17.9	8.8	6.3

Source: Compiled from the data in the GATT (1984), p. 68.

TABLE 6: MFN Tariff Levels for T & C

(Weighted Average, %)

	Fibres	Yarns	Fabrics	Clothing
USA	3.5	9	11.5	22.5
Canada	3	13	21.5	24
Japan	0.5	6.5	9.5	14
EC	0.5	7	10.5	13.5
Austria	0	7	23.5	37
Finland	0.5	6.5	28.5	39
Sweden	0.5	7.5	13	14
Switzerland	0	3.5	8.5	11
Simple average the above	1.1	7.5	15.8	21.9

Source: GATT (1984), p. 69.

In addition to tariffs, non-tariff barriers (NTBs) are widely imposed on LDC T&C exports. Table 7 shows that the percentage of T&C imports subject to NTBs is two to three times that for manufactured imports as a whole. T&C imports from LDCs are more likely to be subject to NTBs than those from developed countries, which is becuase the MFA restrictions are imposed only on low cost suppliers (i.e. LDCs).

TABLE 7: Percentage of Imports Subject to NTBs, 1983

(Weighed Average, %)

	Textiles and Clothing			Manufacturing		
	Total	From DC	From LDC	Total	From DC	From LDC
USA	57.0	31.1	64.0	17.1	16.5	18.6
ECC	52.0	15.6	68.9	18.7	15.2	29.9
Japan	11.8	11.0	13.0	7.7	9.7	4.4

Source: Nogués, Olechowski and Winters (1986)

2. The Nature and History of the MFA

(1) The MFA and the GATT Principles

Loosely speaking, the MFA consists of a system of bilateral quotas against T&C exports from developing countries. 1/ Although the product coverage and minor details are different, the basic idea of the MFA is essentially the same as those of its predecessors, the Short-Term Arrangement Regarding International Trade in Cotton Textiles (STA, 1961-62) and the Long-Term Arrangement Regarding International Trade in Cotton Textiles (LTA, 1962-73). These international agreements allow contracted parties to impose quantitative restrictions in order to avoid "market disruption." The concept of market disruption in the MFA appeared as early as in 1960 when the GATT's contracting parties met to discuss the US proposal on a possible international agreement to restrict T&C trade. As agreed in 1960, the concept consists of three major components: (i) a sharp and substantial increase of particular products from particular sources; (ii) the products brought into at prices substantially below the prevailing prices in the importing country; (iii) serious injury to domestic producers or threat thereof. Of the three components, probably (ii) is the most important. As Sampson (1986) pointed out, "in this manner, low-cost suppliers (that is, developing countries) can be selectively singled out for restraint -- only they can cause market disruption as it is defined by the MFA."

As many authors, including Choi (1985), Keesing and Wolf (1980), and Sampson (1986), pointed out, because the MFA provides for a framework of quantitative restrictions against T&C exports from the developing countries,

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1/ For more detail of the MFA provisions, see Appendix.

the basic idea of the MFA (as well as of the STA and the LTA) is a derogation of GATT principles; non-discrimination and avoidance of quantitative restrictions except for special cases. It is interesting to note that, in spite of such a derogation of the GATT rules, the MFA is administered under the auspices of GATT and is documented by the GATT's contracting parties. In this sense, the MFA presents a rather peculiar case of trade restrictions.

Then, why did T&C industry in importing countries succeed in getting such exceptional protection as the MFA? Several authors, including Keesing and Wolf (1980) and Sampson (1986), speculate as to the origin of the MFA. The answer seems to lie in a series of developments in the cotton industry and in the international trade of cotton products in the 1950s and early 1960s because the basic idea of the MFA mentioned above was first incorporated into the STA in 1961, whose coverage was cotton products.

As many authros agree, the United States played a decisive role in the establishment of the STA, and therfore developments in the US cotton industry is very important. It should be noted that by the 1950s, the US textile industry succeeded in obtaining, at least to some extent, the support for protection against imports of cotton textiles. Keesing and Wolf (1980) note that

> "... two important ideas (were) especially strongly held in the United States, namely (i) that textiles were somehow special and fully deserving of exemption from general liberalization and (ii), a closely related idea, that without protection the industry could hardly survive..."

Keesing and Wolf point out that there are both economic and political reasons for such special attention to the US textile industry. First of all, in those years, output and employment in the US textile industry were stagnant and even declining. It is noteworthy that, while the stagnant situation could be, in

part, attributed to international competition caused by the shift in comparative advantage toward low-wage countries, the main reason for that was a stagnant demand for textile products. In the United States, for example, the share of textile products in personal consumption expenditure fell from 14 percent in 1919 to less than 9 percent in 1959. 1/ In addition to such an economic reason as stagnant output and employment, the political reasons were also very important: (i) the industry was so large that it employed 17 percent of total manufacturing employment in developed countries; (ii) the industry was well organized as a political pressure group; (iii) the only countries affected adversely by the protection were Japan and LDCs, whose political clout was weak in those days.

Such a protectionist idea was reinforced when Japan applied for accession to GATT in 1955. Many countries worried about the potential of Japan, which was dramatically expanding the exports of cotton textiles. And, as Sampson (1986) argues, "restraining all suppliers would require restraint of more economically powerful countries and could prompt retaliatory action or requests for compensation as provided for in Article XIX of GATT." Therefore, the United States, which was a major importer of Japanese cotton products, negotiated and succeeded in obtaining in 1957 an agreement on the Japanese five-year VER on the shipment of cotton textiles to the US. Although the US succeeded in curbing Japanese cotton products, other Asian countries, most notably Hong Kong, dramatically increased shipments to fill the gap, as Table 8 shows.

1/ Keesing and Wolf (1980), p8.

TABLE 8: Shipment of Cotton to the US

($ million)

	1956	1961
Total	154.3	203.3
Japan	84.1	69.4
Hong Kong	0.7	72.0
Other Asian Countries	15.3	25.0
Other	54.2	36.9

Source: Hunsberger (1964)

Such a diversion of sources of imports is particularly common for T&C products, because the setup cost of production is relatively small. Faced with such a diversion, the United States started negotiating with Hong Kong on the VER, in vain, and it brought the issue to GATT in an attempt to obtain a multinational framework for the restriction on T&C products. Meanwhile, the UK formed bilateral agreements with Hong Kong, India and Pakistan on the VER.

As mentioned earlier, such VERs are derogation of GATT principles, because they are discriminatory and quantitative restrictions, and therefore, the restricting countries, especially the US, wanted to obtain international sanction for such restrictions. At the same time, exporting countries also have a reason to agree on an international arrangement because, as Keesing and Wolf argues, "it was feared that uncontrolled restrictions, even if agreed on a 'voluntary' basis, would fundamentally impair the long-term opportunities of

developing countries." While the MFA (as well as the STA and the LTA) provides that the new quota level is not lower than actual shipment before theimposition of the quota 1/, the level of the VER before 1960 was often substantially below the actual shipments of the previous year.

Thus, the interests of the importing and exporting countries, to some extent, coincided, and the international agreement on restrictions on T&C trade came into effect in 1961. As man-made fibre and wool became important by early 1970s, the product coverage was expanded to include such fibres when the MFA started in 1974. In spite of the expansion of product coverage and other changes, the basic concepts of the MFA were the same as agreed in the early 1960s, as discussed above.

(2) Actual Development of the MFA Restrictions

Since the MFA gives only a framework of world T&C trade and actual restrictions are given by either unilateral or bilateral quotas, the degree of severity of MFA restrictions depends on the actual administration of individual quotas. Most studies agree that MFA restrictions have become more comprehensive and more severe over time because of the tougher attitude of the importing countries.

As the GATT (1984) pointed out, MFA I (January 1974-December 1977) can be characterized as the period of "relative liberalization" of trade in textiles and clothing. During this period, many previous restrictions were abolished, consistent with MFA Article 2 (phasing out of pre-MFA restrictions). Not only had cotton textiles been previously subject to

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1/ See Appendix for detail.

restrictions under the STA and LTA since 1961, but also there existed a number of trade restraints on wool and man-made fiber products. Therefore, the period of MFA I "witnessed enhanced discipline in the regulatory measures compared to the autonomous and arbitrary methods of the past". 1/ Secondly, the restrictions imposed during MFA I were more or less consistent with the spirit of the MFA text. Most importing countries preferred highly selective coverage of items in which they faced or anticipated certain problems, (consistent with Annex A of the MFA) rather than comprehensive restrictions; only the United States took comprehensive measures. Further, provisions of Annex B on the base level, growth rate, and flexibility 2/ were relatively well observed by many importing countries.

MFA II (January 1978-December 1981) proved much more restrictive, mainly because of the EC initiatives. During the period of the MFA I, the EC's T&C imports dramatically increased, possibly because the T&C exports from LDCs shifted to the EC from the United States, where a comprehensive system of bilateral restriction had been established in 1971. This increase occurred during a period of economic recession and high rates of unemployment after the first Oil Crisis. Thus, while most of the MFA participants favored a simple extension of the MFA, the EC took a very hard line. Because of the EC a new provision was included in the Protocol of Extension; the possibility of "jointly agreed reasonable departures" from particular elements in particular cases. Although "reasonable departures" are only to be temporary, they have been used for very long periods of time indeed. The departures consisted of reductions in quotas compared to their previous levels (or actual trade),

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1/ GATT (1984), p.78.

2/ See Appendix for details.

reductions in flexibility, and growth rates below 6 percent. 1/ During this period the EC formed a system of comprehensive restrictions, dividing MFA products into 114 categories and five groups. Further, the EC adopted a "basket extractor" mechanism whereby any exporter whose exports exceeded a threshold share of total EC imports would be subject to new controls.

Faced with the growing objections of exporting countries to the frequent use of "departures" under MFA II, the Protocol for MFA III (January 1982-July 1986) did not contain the "reasonable departures" clause. Instead, m re specific provisions were introduced. One of the most important was an "anti-surge" provision concerning under-utilized quotas. As will be discussed in detail in section 5 below, most of the MFA quotas are unfilled except for those imposed on a few superstars of T&C exports. The utilization ratio of other countries is sometimes as low as 10-20 percent. In view of this, importing countries added "anti-surge" provisions to avoid "surges" of imports under unfilled quotas. To facilitate adjustment in importing countries, a permanent Sub-Committee of the Textiles Committee was established to monitor adjustment policies. In spite of these changes, MFA III led to a further tightening of restrictions. In December 1983, the Textiles Surveillance Body reported as follows on the implementation of MFA III:

> "... on the basis of notifications reviewed in 1982 and 1983, the overall picture is one of a somewhat more severe implementation of the Arrangement since the coming into force of the 1981 Protocol of Extension:
> --unilateral measures have been taken more frequently;
> --a number of new bilateral agreements with previously unrestricted countries had been concluded;
> --coverage in terms of products under restraint has increased;

1/ As described in Appendix, the MFA text provides that the annual growth rate of continuing quotas should not be less than 6 percent.

--agreements concluded with large suppliers are again more and more restrictive."

Faced with dramatic import increases in the 1980s, the United States became more and more restrictive. The most important change in the US policy was a "call" system, announced in December 1983. Under this new trigger system, the consideration of a possible case of market disruption can be started when:

(i) imports reached at least 20 percent of production ;

(ii) imports have risen by 30 percent in the previous 12 months and imports from an individual supplier reached 1 percent of production.

The US invited more than a hundred consultations calls in 1984-85, and in almost all cases new restrictions were imposed on T&C exports from developing countries. On the other hand, the EC's policies toward T&C exports from the LDCs in the period of MFA III was less severe than those under MFA II. The EC did not invoke the "anti-surge" provision during MFA III, and the "basket extractor" mechanism was invoked less frequently.

During MFA IV (August 1986-July 1991), provisions for even broader coverage and stricter restrictions were introduced. The "reasonable departures" clause was restored, the product coverage was extended to cover vegetable fibers and silk blends, and other small changes were made to further restrict the T&C exports.

The MFA has now been in effect for many years, and that there are far prospects for abolishment after MFA IV ends, although negotiations on the future of the MFA are being made under the Uruguay Round. Because of the everlasting nature the MFA, it has various effects, including a dynamic impact

in the long run, on LDCs and their economic development, as discussed in detail in section 5.

4. Effects of the MFA on Importing Countries

In addition to institutional and historical studies, many analyses on the effects of the MFA have been published. Most deal with the effects on importing countries, especially the cost to consumers in importing countries; very few analyze the effects on exporting developing countries. Although the major concern of the paper is the effects of the MFA on exporting LDCs, major studies on the effects of the MFA (and other restrictions on T&C trade) on importing countries are briefly examined, because developments in the importing country affect the exporting developing countries. While policy makers in importing countries have tried to justify various MFA restrictions by saying that such import restrictions are necessary to protect domestic industry and workers, most researchers have revealed that import restrictions tend to hurt not only exporting countries but also importing countries as well.

(1) Cost to Consumers and Domestic Job Creation

A number of studies which examine MFA's cost to consumers also consider domestic job creation due to import quotas. Most studies seem to agree that, although the consumers in importing countries incurred huge costs from the MFA quotas, the number of domestic jobs saved or created by the quotas are relatively small, and therefore, that MFA quotas are a poor way to protect workers from foreign competition.

Studies on the cost to consumers have been done by, to name a few, Cline (1987), Hufbauer et al. (1984), Tarr and Morkre (1984) for the US

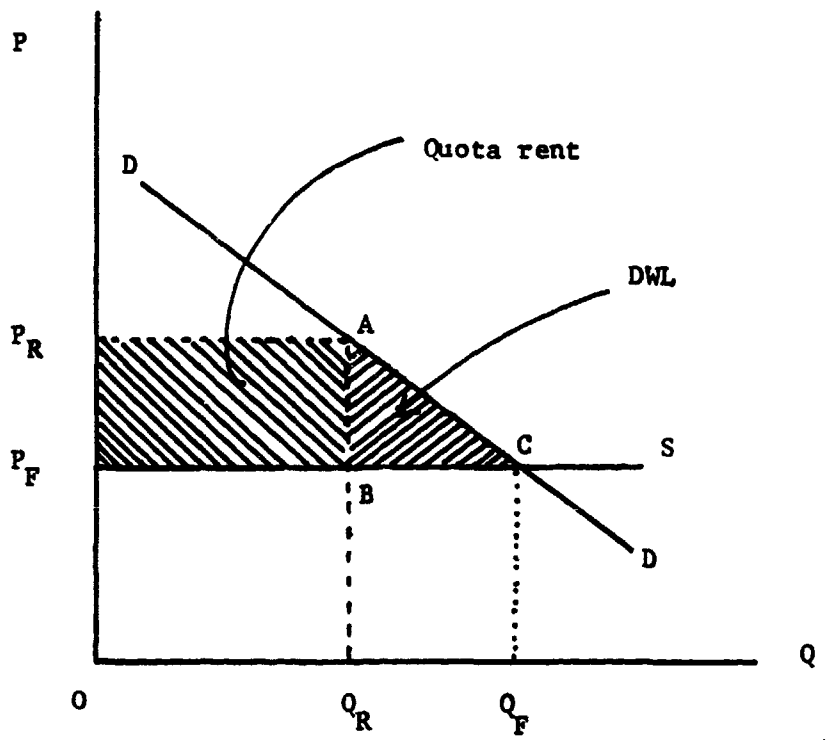
market; Jenkins (1980) for the Canadian market; and Spinanger (1986) for the German market. Of course, the methods of these (and other) studies differ in many respects: (i) type of restrictions (e.g. quota only, or quota and tariff); (ii) coverage of exporters (e.g., all foreign suppliers or Hong Kong alone); (iii) product coverage; (iv) underlying assumption on elasticities, etc.

In spite of this variation, the basic framework of their analyses seems to be the same. Figure 1 shows a simple exposition of such a framework. SS is the foreign supply curve, which is normally depicted as a horizontal line because infinite elasticity of the foreign supply is assumed. But, the following argument also holds for the upward-sloping supply curve. Under free trade, equilibrium is obtained at C, where quantity Q_F is supplied at the price of P_F. When a quota is imposed to limit the imports at the amount of Q_R, there is an excess demand for imports at the price of P_F, and the price has to be increased to eliminate such excess demand. The new equilibrium is obtained at A, where quantity Q_R is supplied at the price of P_R. Rectangular P_RP_FBA represents "quota rent." This quota rent is usually assumed to be transferred to exporting countries because the MFA quota is administered by the exporting countries. 1/ In addition to this quota rent, consumers incur another loss from the restrictions, triangular ABC, which is often called a "dead weight" loss, because it is lost (i.e., cannot be captured by either consumers or producers). Note that total consumer costs due to a protection should be adjusted according to the changed consumer surplus in the market of domestically-produced T&C.

1/ But this assumption is not necessarily warranted in many cases, because when the importers have some market power, the quota rents are, at least in part, captured by importers.

(Figure 1)

Market for Imported T&C



Namely, the protection also affects the price of domestically-produced T&C because domestic T&C is an (imperfect) substitute of the foreign T&C.

Based on this approach the above studies reported various consumers costs to importing countries. The estimated costs from some major studies are listed in Table 8. While estimated values of the consumer costs differ depending on coverage and underlying assumptions, the magnitude of cost to consumers coming from restrictions on T&C imports is large.

Many studies also estimate how many domestic jobs are created or saved by such restrictions. Their estimation technique is straightforward. First, the value of the increased domestic production, which is dependent on, among others, the elasticity of substitution between domestic and imported products, is estimated. Second, the average value of domestic shipments per worker is calculated. Then, the number of jobs created is calculated by dividing changed production by average production per worker. As Table 9 shows, the jobs created are relatively small, and the cost to consumers per job saved is $42,000-57,000, which far exceeds the average wage of T&C workers in the US. Further, it should be noted that consumers incur this cost every year as long as the restrictions continue, while the displaced workers might be able to find new jobs elsewhere over time.

(2) Profits and Income Distribution

In addition to the cost to consumers, and job creation, some studies examined other effects of the MFA on importing countries. Since our major concern is the effects on exporting (developing) countries, only two aspects of these other effects, i.e. profits and income distribution among workers, will be briefly examined.

TABLE 9: Effects of Protection on T&C Imports

	Cline	Hufbauer	Tarr & Morkre	Jenkins	Spinanger
Year	1985	1984	1983	1979	MFA II Period
Coverage	US T&C imports	US T&C imports	US imports of selected clothing from Hong Kong	Canadian clothing imports	German T&C imports
Method of protection	tariffs and quotas	tariffs and quotas	quotas	tariffs and quotas	quotas
Consumer cost	$20.3 bil.	$27 bil.	$0.38 - 0.5 mil.	$400 mil.	DM 600-700 mil. per year
Job created	434,200	640,000	9,000	—	—
Cost per job saved	$47,000	$42,000	$42,000-57,000		

Source: See bibliography.

MFA restrictions have a substantial impact on the profit of domestic producers in the importing country; because of import restrictions they can sell more products at higher prices at the sacrifice of foreign suppliers. For example, Jenkins (1980) reported that as a result of tariffs and quotas imposed on T&C imports, domestic producers in Canada gained by US$240 million in 1979, equivalent to about half the cost to consumers.

Cline (1987) presented an interesting study on the income distribution effect of the MFA, As he mentioned, one of the arguments in favor of protection is that the T&C industry often employs relatively low-wage workers; thus protection might encourage more equitable income distribution through increased employment of these relatively low-wage earners. In order

to test the validity of these arguments, Cline estimated the impact on five income groups. He compared the cost to each income group of the increased prices of T&C with the benefits to each group due to the increased employment and the increased transfers to producers. Contrary to popular belief, the cost of the price increase exceeded the benefit for all income groups except for the top 20 percent, Thus, the protection on T&C imports worsens the income distribution rather than improves it, and the rationale for protectionism becomes even weaker.

5. Effects of the MFA on Developing Countries

While any studies have been done on the effects of the MFA on major importing countries, studies on the effects on exporters are relatively scarce. But this scarcity does not mean that the MFA has an insignificant impact on exporting developing countries. Rather, because the MFA is intended to impose discriminatory restrictions on the exports from developing countries, and because the MFA seems to continue forever, it has a strong impact on developing countries both in the short run and in the long run.

First of all, the MFA has a direct impact on restricted exporters, that is, foregone export revenue partly offset by the transfer of quota rents, because the primary purpose of the MFA is to restrict LDC shipment of T&C products. Second, the MFA affects the trade pattern; since individual quotas under the MFA are imposed on selected (often efficient) exporting countries, unrestricted (inefficient) countries may be able to increase their shipments at the expense of restricted countries. Third, since the MFA put a cap on the quantity (not the value) of shipment, it encourages the upgrading of shipments.

In addition to these immediate effects, the MFA gives dynamic impact on economic development in the long run because it has been in effect for many years and there are no signs of its imminent demise. For example, it is often pointed out that foreign investments from restricted suppliers, like Hong Kong, have been greatly stimulated by the desire to evade MFA quotas. Apparently, such investments to less restricted regions have helped economic development of countries in Asia (and, perhaps to lesser extent, in Latin America and Caribbean).

In the following discussion, I will review existing studies on how and to what extent the MFA affects developing countries, and will discuss a possible direction for future researches needed. Unfortunately, however, the only areas intensively studied are "lost shipment" and "accrued rent" due to restrictions. On the other effects mentioned above, there have been very few, if any, studies that present a theoretical framework, let alone a quantitative estimate of the magnitude of such effects.

(1) Foregone Exports and Rent Transfer

Since analysis of the foregone exports and acquired rent of the exporting country is the other side of the coin of the cost to consumers in the importing county, quite a few studies are available on them. The framework of the analysis of foregone exports and accrued rent in the exporting country is essentially the same as that in Section 4-(1) above.

In Figure 1, the value of the export shipment before the quota is the area P_P0Q_PC while that after the quota is the area P_R0Q_RA. Therefore, total decline in export revenue is the difference between the two. In other words, it is the value of lost shipments due to quantity decrease (BQ_RQ_PC) less the rent transferred (P_RP_PBA). Theoretically, the value of shipments may decrease or increase depending on the elasticities of the demand and supply. The more

elastic the demand, the more likely the value of shipments is decreased by the restriction. But in reality, empirical studies agree that export revenue decreases after the MFA quota.

Empirical studies have found that the magnitude of foregone exports by exporting developing countries is substantial. For example, UNCTAD (1986) reported that if all restrictions on T&C trade (both tariffs and NTBs) were removed, T&C exports from the LDCs to the EC, Japan and the US would increase by $15 billion, an increase almost equal to the actual level of exports (96 percent). Further, out of this 96 percent increase, 60 percent (about two-thirds) could be attributed to the removal of NTBs, of which the MFA restrictions are by far the most important. Similarly, Kirmani (1984) reported in an IMF Staff Paper that the removal of both tariff and nontariff barriers would increase LDC exports to the main OECD countries by 82 percent for textiles and 93 percent for clothing. Whalley (1988), using his general equilibrium approach, estimated that the LDCs as an aggregate are losing around $11 billion from the MFA because the values of foregone shipments due to quantity decline exceeds the transferred rent by that amount.

There are also some estimates on the transferred quota rent to the exporting developing country. Most studies on the cost to consumers in the importing country deal with the quota rent. Virtually all studies assume that quota rent is transferred to the exporting country because the MFA quota is administered by the exporting countries. Using such an assumption, Tarr and Morkre (1984) reported that the rent transferred to Hong Kong from the US restrictions on certain T&C items amounted to $218.3 million, or one-half to two-thirds the cost to US consumers. Similarly, Hamilton (1986) estimated the quota rent accrued to Hong Kong by the price of auctioned quota rights. According to his estimate, Hong Kong acquired as quota rent $100-200 million dollars per year from shipments to the EC in 1981-83 and $130-410 million per

year from shipment to the US in 1982-84. Such rent income amounts to 0.7-1.7 percent of Hong Kong's GDP, and a little more than 10 percent of the value added in Hong Kong's apparel industry. Pelzman (1988) estimated tariff equivalency of quota rents of many categories of the T&C products. Based on the estimates, he reported that the amount of the transferred quota rent from the US to exporting countries is "in the millions."

While many studies cited above agree that the quota rent is huge, it is much smaller than the value of foregone exports. Balassa and Michalopoulos (1985), for example, reported that the value of lost shipment due to quantity decline exceeds the quota rent nine times in the US and seven times in the EC. Further, if we assume the rent-sharing between exporters and importers, the ratio of quota rent transferred to LDCs would become even smaller. The assumption of total transfer of quota rents to the exporting country may be questioned. Tarr and Morkre simply assert that "the rents are transferred from the US to Hong Kong and, therefore, are a deadweight loss to the US. Individuals in Hong Kong obtain the rents because...Hong Kong administers the quotas." However, it should be noted that a total transfer of quota rents holds only when the exporter has a monopoly power and each importer is too small to affect the market. It may be more usual, however, to find the reversal of this condition. In many cases, big buyers, e.g. Sears and Roebuck, deal with small producers in the LDCs. In such cases, some of the quota rents would be captured by the importers in the developed country; the income of the LDCs from quota rents might not as large as the existing studies suggest. Further research is clearly needed on the amount of quota rents captured by exporting LDCs.

(2) Trade Diversion in the Short Run

In addition to the foregone exports and rent transfers, the MFA affects trade patterns. Since the MFA consists of discriminatory quotas, it can bring about trade diversion from more restricted countries to less restricted countries. As Keesing and Wolf (1980), for example, pointed out, such trade diversion occurs in favor of the exports from developed countries because the MFA restrictions are applied only to developing countries. But, such diversion occurs even among developing countries because developing countries are not equally restricted.

While the number of member countries of the MFA is very large (42 countries for MFA III), the number of really restricted countries may be far smaller because the actual restrictions are set by the individual bilateral agreement between each exporting and importing country. The targets of actual restrictions are limited to major T&C exporting countries, and many countries, especially most Latin American countries, are not restricted very much by MFA quotas. As Table 9 shows, while the superstars of T&C exports, Hong Kong and Korea 1/, are severely restricted by the MFA, the restrictions imposed on some of the Latin American countries are far less severe. In addition, although the quotas imposed on Hong Kong and Korea are almost filled, the utilization rates of Colombia and Mexico are less than 50 percent. Further, it should be noted that ACP (African, Caribbean, and Pacific) countries are exempt from the MFA quotas imposed by the EC under the Lome Convention while some Caribbean countries are exempt from the MFA quotas imposed by the US under newly-adopted "super 807" program. 2/

1/ Note that Taiwan (Province of China) is not a member country of the MFA.

2/ Under the new preferential program for the Caribbean countries, often referred to as "super 807," clothing made entirely of US materials can enter the US without regard to bilateral MFA quotas.

Because of the discriminatory nature of the MFA quotas, which are very different from global quotas permitted under GATT Article XIX, it is often pointed out that some developing countries actually benefit from the MFA. For example, Cable (1987) mentions that "some of the less competitive Latin American and Eastern European exporters saw the MFA as providing a

TABLE 10: The Coverage and Utilization Rate of MFA Quotas of Selected Countries

(%)

Exporters	MFA Coverage		Utilization Rate	
	to US	to EC	to US	to EC
Hong Kong	75.7	94.7	100.0	79.0
Korea	76.4	95.1	96.2	89.4
Colombia	40.1	63.5	43.5	35.5
Mexico	45.4	6.4	38.6	9.8

Source: GATT (1984).

guaranteed market share." Similarly, Wolf (1987) pointed out that "any discriminatory quotas allow unrestricted exporters to share the benefits of protection with the domestic producers."

There is some evidence of the trade diversion effect. Keesing and Wolf (1980) present data to support such a trade diversion effect in earlier years. As Table 8 above shows, immediately after Japan announced a VER on shipments to the United States, Hong Kong dramatically increased shipments to fill the gap. More recently, Wolf (1987) presented data to support this

effect. According to him, in 1981-85, the US imports of T&C from the Big Three (Hong Kong, Korea, and Taiwan (Province of China)) have grown at an annual rate of less than 10 percent, while those from other developing countries and from Europe have grown by 22 percent and 33 percent, respectively.

It should be noted, however, that the growth rate of the Big Three being lower than that of other developing countries does not necessarily mean that the trade diversion is caused by the MFA. It is quite possible that such a difference in the growth rates results from the shift in comparative advantage toward newcomers. The MFA sometimes discourages such a shift in comparative advantage because it tends to maintain current distribution of T&C trade among developing countries. Such dynamic effects, as well as trade diversion due to foreign investment, will be further discussed later in section 5-(4) of the paper.

(3) Incentive for Upgrading

In addition to the geographical diversion mentioned above, many authors have argued that quantitative restrictions like the MFA encourage production diversion; upgrading. 1/ Theoretically, quantitative restrictions like the MFA can result in either upgrading or downgrading, "depending on the shapes of the total costs and total valuations," as Leffler (1982) has rigorously shown. But, many authors present arguments and supporting data in its favor.

1/ Feenstra (1986), for example, presented an excellent study on the upgrading of the Japanese shipment of automobiles under the VER.

Cline (1987) discusses the upgrading effect as follows:

> "Because the MFA controls the physical volume of imports rather than their value, it introduces an incentive to upgrade products. In one dimension, this process has occurred from a shift of textiles.....to finished apparel..... While controlled suppliers have had an incentive to upgrade by moving up the ladder of processing stages, they have also faced an inducement to upgrade the quality of their exports within each product category."

As evidence of this effect, Cline presents data which show that the real value of imports grew more slowly than the physical volume in 1961-72 (before the MFA), while the real value of imports grew considerably more rapidly in the initial years of the MFA (1972-77).

Similarly, Wolf (1987) argues as follows:

> "One important respect in which quantitative restrictions are almost inevitably porous is that they permit upgrading. The principal reason for upgrading is that the quota premium, whether explicit or implicit, acts like a specific tax, so having a greater proportionate effect on lower valued than on higher valued items. This, in turn, would be expected to shift both supply and demand away from the lower valued items."

As evidence, Wolf presents data which show that in 1981-84, when the US restrictions on major suppliers of foreign T&C became stricter, the unit value of American T&C imports from heavily restricted countries like Hong Kong, Korea, and Taiwan (Province of China) increased, although those from Japan, Europe and most other LDCs declined due to the appreciation of the US dollar.

Some cast a doubt on the above arguments for upgrading. For example, Tarr and Morkre (1984) argued that "over time quality may improve, i.e., as technology advances and labor skills increase, in the absence of the quotas." A quality improvement over time, particularly from the East Asian exporters, does not necessarily mean the upgrading was caused only by the quantitative restrictions.

Then, what kind of impact does upgrading give to developing countries? As Keesing and Wolf (1980) argued, developing countries could learn how to export more sophisticated products through upgrading induced by the quantitative restrictions. They argued as follows:

> ".....(upgrading) may have been very favourable for the economies' long-term development compared with specializing in turning out larger quantities of cheap sweaters, shorts or slacks. In addition, learning to get the most out of quotas must have been very demanding and has probably greatly strengthened entrepreneurship, management and technical versatility, especially in Hong Kong, South Korea and Taiwan where quotas have had the most restrictive impact."

In spite of the above studies, however, it seems that further studies are needed on whether the MFA significantly contributed to product upgrading, and on how such upgrading, if any, affected developing countries.

(4) Dynamic Impact on Economic Development

The MFA has been in effect for many years, and there is little hope for its imminent demise. In fact, almost thirty years have passed since the international restriction was imposed on T&C trade in 1961. Because of its everlasting nature, the MFA gives important dynamic effects on developing countries in the long run. Although very few, if any, major studies are available on such dynamic effects of the MFA, some of the points that should be studied will be discussed below. Focus of the discussion will be on the encouragement of foreign direct investment and on the discouragement of new entry.

(i) Foreign Direct Investment

As Kumar and McLeod (1981) pointed out, the MFA encourages foreign direct investment into non-restricted (and less restricted) LDCs. As major T&C exporting LDCs, e.g. Hong Kong and Korea, came to realize that the MFA restrictions imposed on them would continue for many years to come, they tried to set up plants in other countries. Kumar and McLeod reported that T&C firms

in Hong Kong made huge investments in other Asian countries, including China, and that some of these investments were made mainly "to circumvent tariffs and quotas imposed by developed countries." More recently, a lot of government officials and businessmen in Caribbean countries, e.g. Dominican Republic and Jamaica, pointed out that many firms in the Asian Big Three have been investing to establish clothing factories in their countries, and that without the MFA the increase in such inflow of capital from Asian firms would have been much slower. 1/

The incentive for such a dramatic increase in foreign direct investment from the Asian Big Three to less restricted countries is probably twofold. The first and obvious one is that becuase of the MFA quotas, Hong Kong, for example, has to set up plants in the less restricted countries, if it is to increase T&C shipments to developed countries over the quota level. Secondly, the quota rent accrued to major T&C exporters seems to play very important role in the foreign direct investment. As examined above, many studies report that the quota rent accrued to Hong Kong is huge (i.e. millions of dollars). Because of this huge quota rent, T&C firms in Hong Kong etc. can earn handsome profits, which can be used as a fund for the foreign direct investment.

It should be noted, however, that, while the foreign direct investment, as well as technological transfers, from major T&C exporters will encourage economic development of host countries, the MFA tends to discourage host countries from becoming "too successful." As examined below, when Bangladesh showed dramatic success in clothing exports with the help of a

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1/ These statements are based on the author's interviews with people in the government and private sectors during a visit to the Dominican Republic in 1987.

Korean company, the developed countries successfully negotiated bilateral restrictions with the poorer country.

(ii) Deterrence to New Entry

In some sense, the MFA tends to maintain the present configuration of T&C trade, and therefore, it discourages the dynamic shift in the trade pattern based on comparative advantage. As the history of economic development of many countries suggests, the production of T&C products was a catalyst to industialization. For example, the dramatic economic development of Japan was spurred by its exports of silk and cotton products some decades ago. As Japan accumulated capital, and as the wage rate of Japan became higher, it shifted toward the production of more capital intensive goods, and Hong Kong (and Korea) acquired the comparative advantage in T&C production. As Keesing and Wolf (1980) argued, "in the absence of (MFA) restrictions on their suppliers, shifts toward new sources of supply could be expected.... If MFA quotas did not exist, these countries (LDCs other than the Asian Big Three) would have the opportunity to follow much the same path to industrialization that Hong Kong, South Korea and Taiwan have been taking, and supplant them as leading clothing exporters."

But, a longlasting MFA would delay the shift in the place of T&C production for at least two reasons. First, quota rent transferred enables Hong Kong to maintain international competitiveness even after its comparative advantage in T&C production has shifted toward less developed countries. Namely, because of higher prices caused by the scarcity generated by the quotas, Hong Kong can compensate for the increase in the real wage rate in the country. This would discourage other less developed LEDcs from becoming major T&C exporters.

Secondly, the MFA tends to directly discourage new T&C exporters from becoming major suppliers because MFA quotas are imposed on even very small and poor countries when they begin to show a rapid increase in the shipment of T&C products. The experience of Bangladesh in early 1980s presents a typical example of such discouragement by the MFA. Spinanger (1987) reported a vivid description of the incident. As he pointed out, "Bangladesh is one of the poorest and most heavily aided countries in the world." But, with the help of Korea and a local entrepreneur with vision, its garment exports increased from almost nothing in 1979 to $500 million in 1987. But late in 1985, the US successfully negotiated the MFA quota with Bangladesh, and out of 700 garment factories then operating, an astonishing 300 were shut down. There are a few other example of the imposition of the MFA quota on small and poor exporters which are insignificant in the total T&C imports by developed countries. 1/

On this harmful impact of the MFA on economic development, Keesing and Wolf (1980) argued as follows:

> "...What are almost certainly the most harmful consequences of textile quotas will come over the long run, therefore, in relatively poor developing countries that have the potential to expand their industrial base and manufactured exports by specializing at first in labour-intensive products such as clothing."

The trade restriction is, in most cases, harmful. But, as examined above, a longlasting restriction like the MFA is all the more harmful because it discourages dynamic change in international division of labor.

1/ For example, when the EC imposed quota against Sri Lanka in 1977, the share of Sri Lanka in total EC imports of T&C was only 0.22 percent.

6. Concluding Remarks

Clothing exports are much more important to the developing countries than to developed countries, and the target of the MFA is placed on low-cost exports from the LDCs. Although the MFA has continued for some time, and although many studies have been made of it, most studies examine only the effects of the MFA on importing countries. In view of the importance of the developing countries in the world T&C trade, more studies are clearly needed on the impact, including dynamic impact, of the MFA on exporting LDCs.

Almost all of the few studies on the effect of the MFA on exporting LDCs concern the transferred quota rent or the change in export values under the MFA quota and they found that the foregone exports and quota rents are huge. Yet, it would be naive to assume exporting countries (or firms) capture all of this quota rent. Moreover, the MFA is likely to have much more effect on LDC exporters because of its complexity and longlasting nature. In addition to the immediate impact such as lost export income due to the quantity restriction, the MFA has a harmful impact on the efforts of economic development through the delay in the shift in the international competitiveness in T&C exports toward poorer LDCs, as discussed above. In order to fully understand the effect of the MFA on exporting developing countries, many more studies seem to be needed on the dynamic interaction of various effects.

Appendix: Major provisions of the MFA

Although the MFA has been extended three times, such extensions were made by attaching new protocols, and the main text of the MFA has remained intact.

(i) Stated Objectives (Article 1)

The stated objectives of the MFA are

> "to achieve the expansion of trade, the reduction of barriers to such trade and the progressive liberalization of world trade in textile products, while at the same time ensuring the orderly and equitable development of this trade and avoidance of disruptive effects in individual markets and on individual lines of production in both importing and exporting countries."

Import restrictions are supposed to be imposed only to avoid disruptive effects, and the T&C industry in developed countries where the industry has lost comparative advantage is supposed to adjust to the new trend either by shrinking or by regaining competitiveness. However, as examined in the main text, actual developments of T&C trade under the MFA are far from the stated objectives.

(ii) Restrictive measures (Articles 3 and 4)

The MFA provides that in certain situations importing countries can take unilateral or bilaterally-agreed restrictive measures in order to avoid "disruptive effects in individual markets and on individual lines of production." Article 3 provides for measures taken when actual market disruption occurs while Article 4 provides for measures when only the risk of market disruption exists. While during MFA I, many unilateral measures were taken after unsuccessful consultations, recently almost all restrictions have

been made under bilateral agreements between the importing and exporting countries.

(iii) Definition of Market Disruption (Annex A)

The determination of a situation of market disruption must be based on the existence of serious damage to domestic producers or actual threat to them. Such damage must demonstrably be caused by the following factors:

(a) a sharp and substantial increase or imminent increase of imports of particular sources;

(b) the products being offered at prices that are substantially below the prevailing price in the importing country.

The MFA does not allow the importing country to take trade restrictions for damages caused by "factors such as technological changes or changes in consumer preference. Thus, according to the text of the MFA, the determination of a situation as 'market disruption' is fairly limited, while, in reality, it has been broadly interpreted.

(iv) Requirements for Individual Restrictions (Annex B)

In order to protect the exporting country restricted by the MFA quota, the MFA stipulates the minimum standards on the base year, growth rate and flexibility of quota, though such standards are often ignored in individual quota restrictions.

The MFA stipulates that new quotas must not be less than actual trade levels during the previous year. In the case of continuing quotas, the annual growth rate should not be less than 6 percent. However, in "exceptional" circumstances, when a recurrence or worsening of disruption is anticipated, the annual growth rate can be reduced below 6 percent. The 6 percent growth rate is higher than that under the LTA, where the required annual growth rate

was 5 percent. As Wolf (1987) pointed out, "the 6 percent growth rate of restraint levels implies the 'withering away' of textile restraints" because the growth rate of 6 percent in volume exceeds the growth of the market by a substantial margin. However, the actual growth rates of quota amount imposed on superstars has been below 6 percent.

Further, the MFA provides a certain flexibility of quota administration. First, where restraint is exercised for more than one product, a particular quota can be exceeded by 7 percent provided there is a corresponding reduction in another quota "swing provision." Second, where restraints are established for more than one year, up to 10 percent of the unused portion of the previous year's quota can be carried over, and up to 5 percent of next year's quota can be carried forward, as long as the combined use of carry over and carry forward does not exceed 10 percent.

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